Glencoe McGraw Hill
Algebra 1, Algebra I

Degree of Evidence regarding the Standards for Mathematical Practice:

Limited Evidence

Summary of evidence:

1. **Make sense of problems and persevere in solving them**. In the chapters reviewed, there are limited opportunities for students to describe what an answer means (e.g. p. 157 #5 & 6). There are occasional open-ended questions, and there are some examples of multiple representations – roughly one per section. There is no opportunity for students to make a plan, implement, and then reflect and adjust the plan. Most questions are very limiting in scope. In the chapters reviewed, there is no opportunity for reflection on answers. Overall, there are infrequent and limited open-ended problem-solving opportunity for students.
2. **Reason abstractly and quantitatively**. Many application problems are mixed throughout the practice problems and examples (e.g. p. 164 #9, 22, 23, 36, 37, 44, & 45 and p. 171). However, the questions are very scripted with many leading questions. Most of the problems have students apply algorithms. There is little to no discussion of reasonableness, and there are very few opportunities for students to determine reasonableness.
3. **Construct viable arguments and critique the reasoning of others**. Partner work is noted in the teacher resource, but there is limited to no direction for the communication. In the chapters reviewed, there are very limited opportunities to make and test conjectures. There are some questions that ask students to explain (e.g. p. 158 #35, 49). There is some error analysis, often at the end of the section of questions – roughly one per section. There are very limited opportunities for students to justify their thinking.
4. **Model with mathematics**. There are many application problems that ask for mathematical models, but the questions are scripted and narrow (e.g. p. 218 #15, 16). Determining reasonableness and revision of methods is not mentioned in the chapters reviewed. There is minimal opportunity for students to revise their results. Rarely are models used for difficult mathematical concepts.
5. **Use appropriate tools strategically.** There are some opportunities for students to contrast different methods (e.g. p. 165 #48). There are several graphing calculator labs in the resource, but there is no discussion of advantages or shortcomings of technology. Some tools are used to explore/model (e.g. Algebra tiles are shown for factoring – p. 483). Technology other than graphing calculators was not mentioned in the chapters reviewed, but graphing calculators are referenced frequently in the chapters reviewed.
6. **Attend to precision.** Examples use proper notation and are precise. In the chapters reviewed, examples of precise communication, for example a sample student conversation in the teacher's edition, were not present. Students are given minimal opportunities to communicate. There is attention to precision in the examples, but no discussion for students to tackle.
7. **Look for and make use of structure**. In the chapters reviewed, very rarely do students use patterns to make generalizations. Often rules are given at the beginning of the section, and examples of applying the algorithm follow (e.g. pp. 153, 170, 180). Occasionally a question will have students work several problems, and then ask them some detail about the pattern. There is limited to no connection to prior learning. There is very little to no use of specific examples moving to generalization.
8. **Look for and express regularity in repeated reasoning.** In the chapters reviewed, patterns are rarely used to make generalizations. Rarely are students asked to discover shortcuts from

repetitiveness. There are very few, if any, opportunities for students to generalize a pattern to determine a rule.